

CHAPTER 6

AIR DEFENSE ARTILLERY

6-1 GENERAL:

The DTOC will replicate the SHORAD Battalion TOC by transmitting Air Defense Early Warning Messages on the Division Early Warning (DEW) Broadcast Net ICW CMTC S6 instructions.

6-2 PURPOSE: To outline Air Defense Activities at CMTC, and describe Air Defense requirements and restrictions.

6-3 MILES/AGES II ENGAGEMENTS:

a. MILES/AGES (or AGES II, when fielded) must be operational and must be used for a successful engagement (i.e., the ATWESS cartridge must be fired and the FLASHWESS must be operational for a valid engagement).

b. The Avenger is replicated by the Avenger force-on-force trainer (FOFT) MILES system.

c. AVENGER engagements will be determined IAW MILES engagements against MILES/AGES (AGES II) equipped aircraft. Against non-MILES/AGES (AGES II) equipped aircraft, engagements will be determined IAW Paragraph 6-4 (below).

d. An O/C who observes the gunner/crew completing the proper firing sequence will use a white star cluster to replicate BLUFOR Surface-to-Air Missile (SAM) launches. OPFOR or Contractors will also use white star clusters to replicate OPFOR SAM launches.

6-4 NON-MILES GROUND TO AIR ENGAGEMENTS (CAS):

a. Non-MILES engagements are evaluated based on the level of air defense against the appropriate attacking aircraft.

b. Once informed that aircraft are on station, O/Cs monitor the level of air defense activity within their area. The O/C notifies the ADA O/C of valid AD engagements. The BULLSEYE O/C will observe and determine aircraft to be assessed, and whether the fires were concentrated against a particular target. Since there is a possibility of fratricide, the O/C informs the ADA O/C of attacks against friendly aircraft, as well as opposing aircraft.

c. For a valid engagement, the O/C must determine if the target is in range of the AD weapon system (5km Stinger, 2000m BFV main gun).

(1) The O/C should observe the AD gunner acquire the target, track it, and properly fire the weapon (ATWESS simulator for Stinger, FLASHWESS for BFV).

(2) Combined Arms for Air Defense (CAFADs): One half or more of a company/team available small arms/automatic weapons must be fired toward the aircraft to constitute a valid engagement.

(3) CO/TM O/Cs must pass this information to the ADA O/C for the unit to receive credit for an engagement.

(4) BLUFOR AD weapons fire is limited to the ATWESS simulators (STINGER) or paper replicated ammunition available, as outlined in Chapter 8, Combat Service Support.

d. The ADA O/C passes the number(s) and type(s) of engagement(s) to the BULLSEYE O/C. The BULLSEYE O/C determines the number of aircraft kills and advises the aircraft and O/Cs.

(1) The BULLSEYE O/C directs the assessed aircraft to depart the battle area without further engagements and informs the Senior TF O/C.

(2) Aircraft may be reconstituted at the Initial Point (IP) and will assume the role of another sortie IAW OPFOR CI.

(3) The COG may grant exceptions to this if further attacks threaten overall accomplishment of training objectives.

(4) The COG, in coordination with the Senior BULLSEYE O/C, may direct CAS to attack designated static targets to accomplish CAS/ETAC/ALO training objectives.

6-5 NON-MILES AIR TO GROUND ENGAGEMENTS (CAS):

IAW the munitions used and quality of attack, the BULLSEYE O/C recommends to the Senior Task Force O/C of the number of ground targets assessed for each engagement.

(1) IAW the Senior TF O/C guidance, the O/C nearest the assessed vehicle(s) kills the vehicle(s) and informs the crew(s).

(2) The Senior O/C may direct that the vehicle be reconstituted and returned to the battle if an aircraft was effectively engaged upon ingress, and is IAW Chapter 2, Paragraph 2-6.j.

6-6 ASET IV:

a. Aerial Survivability Equipment Trainer (ASET-IV). All rotational aircraft must emit (squawk) Identify Friend Foe (IFF) code during operations at CMTC IAW HFCA, HAAF SOP and the HTA APG. IFF code allows ASET-IV radar system to track aircraft. Aircraft that do not squawk Mode III code during missions in the box will be assessed as destroyed.

b. Valid engagements are classified as either High or Low probability, based on aircraft tactics and Electronic Counter Measures (ECM). Engagements are HIGH probability if the tracked aircraft flies relatively straight and fails to release chaff and/or flares. Engagements are LOW probability if the tracked aircraft takes evasive action, releases flares, and/or uses ECM.

c. ASET IV gunners properly acquire, track and fire the weapon system at a target that is within range of the system, and the appropriate pyrotechnic device/FLASHWESS is fired. MILES/AGES is the primary damage assessment device used, however O/Cs may still use subjective evaluations for aircraft without MILES/AGES, and/or unusual/unique circumstances. Due to the ability of the ASET IV system to simulate a variety of threat systems, ranges/tracking times are as follows:

(1) IR-SAM system: Minimum range: 500 meters. Maximum range: 8,000 meters. Track time after firing: minimum of 3 seconds.

(2) RF-SAM systems: Minimum range: 3,000 meters. Maximum ranges: 12,000 meters. Track time after firing: minimum of 9 seconds.

(3) AAA systems: Minimum range: N/A meters. Maximum range: 4,000 meters. Track time before firing (radar-assisted engagements only): minimum of 11 seconds. Track time after firing: N/A